

**CLAIMS**

What is claimed is:

1. A connector assembly comprising:

a first housing having a retention arm; and

a second housing having an opening for receiving the retention arm, wherein the retention arm is mounted in the opening and the first housing and the second housing are moveably connected.

2. The assembly of claim 1, wherein the first housing and the second housing are moveably connected in a longitudinal direction.

3. The assembly of claim 1, wherein

said first housing includes a first rib proximate a terminating end of the retention arm, and

said second housing includes a second rib within the opening, wherein the first rib and the second rib engage one another to hold the retention arm in the opening.

4. The assembly of claim 3, wherein the retention arm can move longitudinally within the opening from a point where the first ridge and the second ridge engage to a point where the retention an-n abuts an end of the opening.

5. The assembly of claim 1, wherein the first housing and the second housing have an upper side for receiving periphery and a lower side for connecting to a printed circuit board (PCB).

6. The assembly of claim 5, wherein the lower side includes contact pins for providing connectivity to the PCB.

7. The assembly of claim 5, wherein the lower side includes guide pins for aligning the housing with the PCB.

8. The assembly of claim 1, wherein said second housing further includes a guide for aligning the first housing and the second housing.

9. The assembly of claim 1, wherein said first housing further includes a guide for aligning the first housing and the second housing.

10. The assembly of claim 1, wherein said first housing further includes a stop for preventing the retention arm from passing through the opening.

11. The assembly of claim 1, wherein the retention arm includes a plurality of retention arms and the opening includes a plurality of openings, wherein each retention arm is mounted in an associated opening.

12. An adjustable pin header assembly for mounting to a printed circuit board (PCB), accepting periphery and providing connectivity between the periphery and the PCB, the assembly comprising

at least one first header having an upper side for receiving periphery, a lower side having contact pins extending therefrom in alignment with corresponding vias in the PCB, and a female connection mechanism; and

at least one second header having an upper side for receiving periphery, a lower side having contact pins extending therefrom in alignment with corresponding vias in the PCB, and a male connection mechanism;

wherein the at least one second header is secured to the at least one first header by mounting the male connection mechanism in the female connection mechanism.

13. The assembly of claim 12, wherein the at least one first header and the at least one second header can move longitudinally with respect to one another.

14. The assembly of claim 12, wherein the male connection mechanism can move longitudinally within the female connection mechanism.

15. A printed circuit board (PCB) assembly comprising

a PCB; and

a movable pin header assembly connected to the PCB, wherein the movable pin header assembly includes a first header having a male connection mechanism formed therein and a second header having a female connection mechanism formed therein and the first header and the second header are mounted together.

16. The assembly of claim 15, wherein said PCB includes vias and said movable pin header assembly includes pins in alignment with the vias.

17. The assembly of claim 16, wherein the first header and the second header can move longitudinally with respect to one another prior to connection to the PCB to allow for alignment of the pins and the vias.

18. A method for manufacturing an adjustable pin header assembly, the method comprising:

fabricating a plurality of headers, wherein at least a first subset of the plurality of headers include a female connection mechanism and at least a second subset of the plurality of headers 1 5 include a male connection mechanism; and

connecting at least a first header having a male connection mechanism to at least a second header having a female connection mechanism, wherein the first header and the second header can move longitudinally with respect to each other.

19. The method of claim 18, wherein the male connection mechanism can move within the female connection mechanism to allow the first header to move longitudinally with respect to the second header.

20. The method of claim 18, wherein each of the plurality of headers is fabricated independently of each other.

21. The method of claim 18, wherein said fabricating includes fabricating a housing for each of the headers, wherein each of the housings include receptacles for receiving pins; and

inserting pins in appropriate receptacles in the housings, wherein the pins are used to connect the headers to a printed circuit board.

22. The method of claim 21, wherein at least a subset of the housings have a male connection mechanism formed therein and at least a subset of the housings have a female connection mechanism formed therein.

23. The method of claim 18, wherein the male connection mechanism is a retention arm and the female connection mechanism is an opening.

24. The method of claim 23, wherein the retention arm includes a first ridge formed proximate a terminating end and the opening has a second ridge formed therein.

25. The method of claim 24, wherein said connecting includes inserting the retention arm in the opening until the first ridge passes the second ridge.

26. The method of claim 25, wherein the retention arm can move within the opening from a point where the first ridge and the second ridge engage to a point where the terminating end of the retention arm abuts a terminating end of the opening.